

## The effect of vaginal progesterone suppository on prevention of preterm delivery

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### ABSTRACT

**Background and Aim:** Preterm labor (PTL) is considered as one of the main causes of fetal mortality worldwide. Therefore, prevention of PTL is one of the main goals of midwifery care. The present study was conducted to determine the effect of vaginal progesterone suppository on the prevention of PTL.

**Materials and Method:** In this randomized clinical trial, 200 singleton pregnant women at 24-34 weeks of gestation with diagnosis of PTL were treated with IV magnesium sulfate and corticosteroid. In the intervention group (n=100), in addition to the above mentioned drugs, progesterone suppository (200 mg) was administered at the start of treatment and every 12 hours until discontinuation of uterine contractions. After successful tocolysis, use of progesterone suppository continued until the end of the 34th week. Midwifery outcome including the interval between the onset of tocolysis and discontinuation of uterine contractions and the occurrence of labor, the gestational age at the time of delivery and neonatal outcome were recorded in the two groups.

**Results:** The mean intervals between the start of tocolysis and discontinuation of uterine contractions were  $6.33 \pm 3.78$  and  $6.72 \pm 3.07$  hours ( $p=0.432$ ) in the control and intervention groups respectively. Also, the intervals between successful tocolysis and delivery were  $35.1 \pm 21.9$  and  $36.7 \pm 25.1$  days respectively ( $p=0.634$ ). There was no significant difference between the two groups in terms of gestational age at the time of delivery and neonatal outcome. Although neonatal mortality in the control group was twice that in the intervention group, the difference was not significant ( $p=0.194$ ).

**Conclusion:** The present study showed that vaginal progesterone suppository had no effect on the prevention of PTL.

**Keywords:** Progesterone, Vaginal Suppository, Preterm Labor, Gestational Age

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